



The Journal of Sociology & Social Welfare

Volume 40

Issue 4 December - Special Issue on Animals:
Redefining Social Welfare: Connections Across Species

Article 3

2013

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Recommended Citation

Matsuoka, Atsuko and Sorenson, John (2013) "Human Consequences of Animal Exploitation: Needs for Redefining Social Welfare,"
The Journal of Sociology & Social Welfare: Vol. 40 : Iss. 4 , Article 3.
Available at: <https://scholarworks.wmich.edu/jssw/vol40/iss4/3>

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Human Consequences of Animal Exploitation: Needs for Redefining Social Welfare

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This paper addresses an area which has not been given serious consideration in social welfare and social work literature, the instrumental use of nonhuman animals, in particular as food, and argues that the welfare of humans and other animals are intertwined. The paper examines the consequences of animal exploitation for humans in terms of health, well-being, environmental damage, and exploitation of vulnerable human groups. The paper concludes that a necessary redefinition of social welfare entails attention to these issues and the recognition that other animals have inherent value and their rights must be respected.

Key words: animals as food, animal exploitation, animal rights, Human-Animal relationships, social welfare, factory farming

The concept of social welfare has evolved and is in flux (e.g., Graham, Swift, & Delaney, 2012). Originating from charity, social welfare is evolving from a residual model of welfare to a justice-based institutional model. Today it has shifted to a mixed-economy model of the welfare state where government plays a lesser role and there is greater involvement by the market economy and greater expectations of family (Taylor-Gooby, 2004). However, its focus on human needs has remained the same, as expressed in one definition: "collective action concerned with meeting basic human needs"

(Mishra, 1987, p. 151). The question we raise is: should social welfare be redefined to include other animals even if we retain its goal of meeting human needs?

While Animal Studies and the more politically-engaged Critical Animal Studies have gained ground in other academic disciplines, Ryan (2011) finds that social work remains fixed in its anthropocentric perspective and advocates for inclusion of other animals in a revised social work code of ethics. Numerous works link violence towards other animals and humans (e.g., Becker & French, 2004; Boat, 2002) and recognize positive/therapeutic values of other animals to humans (e.g., Lutwack-Bloom, Wijewickrama, & Smith, 2005). Social work scholars have urged further research on animal-human bonds as a basis for practice (Risley-Curtiss et al., 2006) and in education (Tedeschi, Fitchett, & Molitor, 2006), but work with an explicit animal rights perspective is sparse. Literature on social welfare and other animals is even more limited. A database search on social welfare and animals yields little relevant work. Lack of attention to other animals misses important dimensions, overlooking direct links between the exploitation of animals and human problems. In social work literature, other animals are considered for utilitarian purposes (e.g., therapeutic aids or indicators for violence against humans), yet their instrumental use (e.g., food, experimentation) is not seriously questioned. Since few works address social welfare and exploitation of other animals for food, this paper opens an examination of connections between exploitation of other animals with that of humans.

The main function of social welfare in capitalist societies has been considered as the allocation of resources that otherwise does not happen if left to a market economy alone (Gilbert, 1985). Key values in social welfare in such allocation are fairness and equality to achieve social justice (Taylor-Gooby, 2004). These values are congruent with an anti-oppressive approach. In Canada, this approach is the core of social work practice, providing a basis for understanding social welfare from a critical structural perspective. Key aspects of an anti-oppressive approach involve paying particular attention to structural oppression based on hierarchies of gender, racialization, class, ethnicity, age, (dis)abilities, sexual identities and others, and reflecting on power/control in analysis (Healy, 2000; Mullaly,

1997; Taylor & White, 2000). Considering intersectionality of oppression is also important for this approach. We will incorporate this in our examination of human relationships with other animals and social welfare.

Ethical debates on relationships of humans and other animals have a long history, extending back to Pythagoras in 570 BC (Regan & Singer, 1989; Ryan, 2011). For our analysis, we contrast a modernist anthropocentric perspective that suggests we owe no direct duties to other animals but merely indirect ones to humans (Cochrane, 2010) and an anti-speciesist perspective. Speciesism is “a prejudice or attitude of bias in favor of the interests of members of one’s own species and against those of members of other species” (Singer, 2002, p. 6).

In general, two perspectives critique the unchecked human exploitation of other animals. A utilitarian view of animal welfare assumes it is legitimate to use other animals if it results in the greater good and certain standards of treatment are observed (Singer, 2002; Webster, 2005). Animal rights philosophy, on the other hand, asserts that other beings are not ours to use for food, clothing, entertainment, or experimental objects, but that other animals have their own inherent value, recognizing the sentience of other forms of life, and rejects a view of animals as property and their instrumental use. Animals have rights to not be exploited and subjected to suffering (Francione, 2000, 2003; Haynes, 2008; Sorenson, 2010). Both perspectives agree that animal exploitation has negative consequences for humans as well, which is exemplified by factory farming.

Raising Animals as Food: Factory Farms

Factory farming accounts for 43 percent of egg, 55 percent of pork and 72 percent of poultry production globally (Worldwatch, 2012). Animals in food industries are commodities. In order to maximize profit, their well-being is a concern only when it affects the products. The appalling treatment of animals in factory farming is well-documented (Davis, 2009; Mason & Finelli, 2006; Singer, 2002). For example, Canada’s factory farms cram 5-7 egg-laying chickens into 16” by 18” wire battery cages (Canadian Coalition for Farm Animals, 2005). Until they are killed, female pigs spend their lives being impregnated repeatedly and penned in two-foot wide metal

gestation crates, unable to move or lie down (Humane Society of the United States, 2012). Cows are held in:

barren, manure-filled feedlots containing up to 40,000 cows. They endure branding, castration, and dehorning without anesthetic. The feedlot air is so saturated with ammonia, methane, and other noxious chemicals from the build-up of feces that many of these cows suffer from chronic respiratory problems. (Chooseveg.ca, n.d.)

From an anthropocentric perspective, if such suffering stops with other animals, it does not concern human welfare and should not be considered in calls for collective action for social welfare. However, it is not only other animals who suffer because of the conditions in which they are produced.

Factory farms in the U.S. produce around 788,000 tons of manure daily (equivalent to nearly 3 tons of fecal matter each year per household), stored in solid piles or as liquefied excrement in open lagoons (Farm Sanctuary, 2011). Some is spread on cropland, but there is too much to be absorbed. Much of it is contaminated with heavy metals, pathogens, veterinary drugs, pesticides, antibiotics, and hormones, as well as parasites, viruses and bacteria. This causes significant surface and groundwater pollution and the spread of toxic algae that strangles aquatic life, along with other yet-unknown long-term consequences.

Impacts on human health include a variety of cancers, diabetes, hyperthyroidism, deformations of the central nervous system, and spontaneous abortions (Burkholder et al., 2007). Water pollution from manure and fertilizers is a primary cause of methaemoglobinaemia, the reduced ability of the blood to carry oxygen through the body, resulting in vomiting, diarrhea and lethargy and in serious cases, loss of consciousness, seizures and death, especially for infants (World Health Organization, n.d.). The Centers for Disease Control and Prevention (1990) reported “many” farm workers killed by hydrogen sulphide emissions from manure pits, citing 21 deaths from the previous decade. A judicial inquiry report concluded that an E. coli outbreak that killed seven people and poisoned 2,300 others in Walkerton, Ontario in May 2001 was

due to water pollution from manure runoff (CBC News, 2002). Contamination of Milwaukee's drinking water by manure from dairy cows caused a 1993 outbreak of cryptosporidium, which killed over 100 people and poisoned 403,000 (MacKenzie et al., 1994). "The total cost of outbreak-associated illness was \$96.2 million: \$31.7 million in medical costs and \$64.6 million in productivity losses" (Corso et al., 2003, p. 426).

Factory Farms and Antibiotics

Overcrowding highly-stressed animals in filthy conditions invites the spread of disease. To avoid this, agribusiness doses animals with antibiotics and is the second-largest user of antibiotics after the medical industry (Lancet, 2003; Singer et al., 2003). Industry regularly doses cows with antibiotics to keep them alive when raising them on corn, rather than the grass they naturally eat. A grain diet causes digestive problems, bloating and diarrhea, weakening the cows and making them more susceptible to disease; it also encourages development of *E. coli* bacteria, which is rampant in feedlots (Meristem Information Resources, 2004).

Agribusiness also uses antibiotics to promote rapid growth (Goodman, 2009; Hughes & Heritage, n.d.), as well as toxic drugs such as ractopamine, which are banned in the European Union, China, Taiwan and other countries, but are given to up to 80 percent of pigs in the U.S. (Bottemiller, 2012). Prolonged application of antibiotics in low doses encourages development of resistant bacteria, reported from the mid-twentieth century. Evidence shows that resistant bacteria can be transmitted from other animals to humans (Dibner & Richards, 2005). Clearly, antibiotic use must be restricted to reduce risks of selecting resistant bacteria. This is particularly significant, since antibiotics used to treat factory-farmed animals are vitally important for human medical use, and once resistance develops, few or no other effective treatments exist. Antibiotic resistance is recognized as a major public health concern. Sweden banned antimicrobial growth promoters in 1986; in 1998, the European Union banned four antibiotics (tylosin, spiramycin, bacitracin, and virginiamycin), and Denmark stopped using antibiotics as growth promoters in the same year. This created a "marked reduction" in resistance in enterococci bacteria in animal feces (Frimodt-Møller & Hammerum, 2002).

Along with increased human illness come treatment failures against resistant infections. For example, in Denmark resistant salmonella from contaminated pork caused the death of two patients treated with fluoroquinolones (Anderson, Nelson, Rossiter, & Frederick, 2003, p. 376). Most antibiotics were discovered decades ago and few new treatments have been developed, suggesting that untreatable diseases may increase and leading Marc Sprenger, Director of the European Centre for Disease Prevention and Control, to describe the need to halt the spread of antibiotic resistance as “critical” (Gilbert, 2011; Walsh, 2011). Annual costs of antibiotic-resistant bacteria in the U.S. are between \$1-30 billion “depending on the value of human life used” (McNamara & Miller, 2002, p. 1298). One example of such resistant “superbugs” is the development of methicillin-resistant *Staphylococcus aureus* (MRSA) that kills more people in the U.S. each year than the AIDS virus (Bancroft, 2007). A recent study of Iowa and Illinois pig farms found a 49 percent overall prevalence of MRSA (36 percent in adult pigs and 100 percent in pigs aged 9 to 12 weeks) (Smith et al., 2009). Margaret Chan, Director General of the World Health Organization, identified antimicrobial resistance as a major health problem, warning that a post-antibiotic era means “an end to modern medicine as we know it... Some sophisticated interventions, like hip replacements, organ transplants, cancer chemotherapy, and care of preterm infants, would become far more difficult or even too dangerous to undertake” (Chan, 2012, para. 29-30). Thus, consequences of exploitation of other animals in intensive agribusiness have become global welfare issues.

Factory Farms and Chemicals

In addition to feeding antibiotics to other animals, agribusiness corporations dose them with toxic substances to increase productivity (O'Brien et al., 2012; Ranallo 2012;). Pharmaceutical corporations sell arsenic compounds to the broiler chicken industry to increase animals' weight and improve the appearance of their flesh (Philpott, 2011). Of 8.7 billion broiler chickens killed annually in the U.S., 70 percent are fed arsenic (Wallinga, 2006). Humans ingest this poisonous substance by consuming their flesh but are also exposed to

other forms of contamination, since arsenic does not degrade but accumulates in the tens of billions of kilograms of waste produced by the industry. A study of one community located near factory farming operations found arsenic dust in 100 percent of households (Wallinga, 2006). Along with arsenic accumulations, factory farm waste contains concentrated bacteria and toxic chemicals, and waste lagoons emit gases such as ammonia, hydrogen sulfite and methane (Michigan Department of Environmental Quality, 2006; United States Environmental Protection Agency, 2001). Taxpayers subsidize the clearing of such contaminants (Union of Concerned Scientists, 2008). Not only people who consume animals, but communities near these industries face serious health, societal and economic consequences. Such consequences cannot be left to a market economy to adjust; rather, social welfare policies must protect individuals and communities and prevent violation of basic rights.

In 2008 the Pew Commission on Industrial Farm Animal Production's 2.5 year study in the U.S. found that factory farming created unacceptable dangers for human health and the environment and extensive suffering for other animals. The Commission also noted the industry's power to influence research and set the political agenda. The Union of Concerned Scientists presented similar conclusions in its study on Confined Animal Feeding Operations (i.e., factory farming) (Gurian-Sherman, 2008). An unhealthy atmosphere for other animals also poses health risks for human workers, who develop respiratory diseases. These problems also affect local communities in the forms of asthma and other respiratory problems (Marks, 2001), nausea, fatigue, depression (Humane Society of the United States, 2008), and neurological disorders (Lee, 2003). Noxious odors keep local residents inside their homes and disrupt their outdoor activities, making them feel that their living spaces have been violated and contributing to anxiety and depression. Controversy over factory farms splits communities as agribusiness targets vocal opponents and reduces community social capital (Donham et al., 2006).

Factory Farms and Climate Change

Impacts do not end at the local community level. The

livestock industry is a major producer of methane, a main greenhouse gas linked to climate change, and ammonia, a precursor to fine particulate matter, a significant environment-related public health threat in the U.S. (Shih, Burtraw, Palmer, & Siikamäki, 2006). Noting that a single cow produces about nine kilograms of smog-producing volatile organic compounds (more than a car or light truck), California government officials identified the state's dairy industry as a major air polluter and a consistent violator of environmental laws; New Zealand's 40 million sheep and 10 million cows contribute 43 percent of that country's greenhouse gas emissions (Owen, 2005). Globally, livestock production is responsible for 80 percent of greenhouse gas emissions from agriculture, 18 percent of greenhouse gas emissions from all human activities and 64 percent of ammonia emissions, which contribute to acid rain (Pachauri, 2008). Producing meat is more energy-consumptive than producing vegetables for consumption, requiring far higher amounts of water, at least 16 times as much fossil fuel, and producing 25 times as much carbon dioxide emissions (Pachauri, 2008).

Transporting, Slaughtering and Processing Animals for Food

Transporting animals is extremely stressful for them (Scientific Committee on Animal Health and Welfare, 2002). In Canada "it is not uncommon ... for these animals to be forced to stand or lie in their own waste in overcrowded conditions and endure extreme weather" without water and protection (World Society for the Protection of Animals, 2010, p. 4). The European Food Safety Authority discourages long-distance transportation of animals and the Food and Agriculture Organization of the United Nations (FAO) (2002) warns "modern animal transport systems are ideally suited for spreading disease," creating suffering for animals and increasing risks of transmission to humans (p. 19).

The global meat industry is dominated by giant corporations that have mechanized production and slaughter in industrial-scale operations processing billions of animals each year (Humane Society of the United States, 2008; Pew Commission, 2008). These institutions are nightmares for animals confined within, and are also dangerous for human workers who kill and process them (Eisnitz, 1997; Pachirat, 2011). Slaughterhouse

workers in the U.S. endure appalling conditions, and labor laws to protect workers typically go unenforced, since much of the workforce in the plants consists of undocumented foreign workers who are less likely to complain about conditions in which they work, for fear of deportation (Human Rights Watch, 2005). The imperative to kill as many animals as possible, as quickly as possible, puts workers under constant pressure to keep up line speeds; Rifkin (1992) notes such lines process up to 300 cattle per hour. Killing so many animals is exhausting, both physically and mentally. Workers complain that they do not even have time to sharpen their blades (Human Rights Watch, 2005), which means they must work with dull implements, increasing the danger to themselves and creating more pain for the animals they kill. Repetitive motions lead to stress injuries and chronic pain in hands, wrists, arms, shoulders and backs. The industry is dominated by corporate giants (e.g., Purdue, Tyson), which control all stages of production, processing, transportation and killing; most injuries go unreported in an anti-union context in which uninsured, poorly-paid workers endure dangerous working conditions (Walker, Rhubart-Berg, McKenzie, Kelling, & Lawrence, 2005; Winders & Nibert, 2004).

Anthropocentric critiques focus on improving labor conditions for humans alone. However, improvement cannot be attained without considering 'the objects' of the work. Ensuring quicker death for animals, for example, requires better-maintained implements, such as sharper blades or slower line speeds for processing. So, treatment of animals still must be considered in order to make meaningful changes to address human needs. However, while agribusiness lauds welfarists such as Temple Grandin for helping other animals, her slaughterhouse innovations contribute to greater efficiency and profitability and convey a kinder image, but do not address the structural violence that places other animals at the mercy of humans who regard them as commodities and lesser beings.

Examining these processes from an anti-speciesist perspective means applying the principle of equal consideration to both animals and workers. Some anti-speciesists consider killing permissible if it is done painlessly (Singer, 2002); Haynes (2008) calls them animal welfare reformists. From this perspective, the abovementioned situations are wrong, but if

practices are reformed to reduce pain for animals, they are acceptable. Such assumptions are questionable, at the very least: it is unlikely that killing can be accomplished painlessly (e.g., Davis, 2011), especially under conditions of industrial capitalism, and the production and consumption of meat do much to undermine the common good, as noted above. An anti-speciesist, animal rights perspective concludes that both well-being of other animals and human workers must be considered and advocates abolition of slaughtering. Regardless of the outcome for other animals, anti-speciesist perspectives direct us to include other animals' well-being when considering the well-being of humans.

Webster (2005), an animal welfarist but not an anti-speciesist, is concerned about the slow reform to more humane treatment of farmed animals and calls for immediate changes. Animals in the industrial food system endure miserable lives and gruesome deaths, with many regularly skinned or boiled alive (Warrick, 2001). Institutionalized brutality has psychological effects, and workers are regularly observed inflicting additional cruelties on animals they kill. For example, undercover video by groups such as Mercy For Animals shows workers kicking, punching and stabbing various animals for amusement. While some sadistic individuals may seek employment in slaughterhouses so they can indulge their taste for cruelty, other workers are brutalized by an inhumane system (Eisnitz, 1997; Equality and Human Rights Commission, 2010; Grandin, 1988). Demands of killing large numbers of animals on a rapid basis lead workers to quickly lose any appreciation of them as sentient beings who feel pain, seeing them instead as obstacles that interfere with the job, especially those who try to resist or escape.

Psychological consequences include Perpetration Induced Traumatic Stress, often manifested in alcohol and drug abuse, anxiety, depression, paranoia, disintegration and dissociation (Dillard, 2008). Other workers cope through a process of 'doubling,' in which those who carry out atrocities create a separate self to perform tasks their natural self regards as evil (Lifton, 1986). Slaughterhouse workers face a disconnect between their empathy for other forms of life and the disregard they display towards animals objectified as commodities; the psychological

impact of overcoming the aversion to killing is often expressed in outbursts of rage and sadistic attacks (Eisnitz, 1997). Not surprisingly, violence toward other animals is linked to violence toward humans, and areas in which slaughterhouses are located have higher rates of violent crime (Fitzgerald, Kalof, & Dietz, 2009). Significant relationships between violence against humans and against companion animals are well documented (Becker & French 2004; Boat, 2002). These studies indicate that both witnessing and inflicting cruelty to other animals have serious long-term psychological and behavioral negative impacts on people (Boat, 1995; Kellert & Felthous, 1985) and communities (Fitzgerald et al., 2009).

Animal exploitation also has negative societal moral consequences (Humane Society of the United States, 2008). There is widespread belief that one should not harm other animals “unnecessarily,” and even industries that are based upon mass killing of animals invoke ritual expressions of concern for “animal welfare” (e.g., McDonald’s, n.d.). People who eat meat must somehow reconcile their behavior with their expressed sentiments. One strategy is to reject the idea that other animals deserve moral consideration and to deny that they have sentience and the ability to suffer (Loughnan, Haslam & Bastian, 2010). Those with power over other humans use similar distancing techniques to legitimize racism and genocide, portraying those they victimize as less worthy and less capable of feeling (Patterson, 2002). Denial of the moral status of other animals is identified as a model for human slavery and genocide and with the exploitation of women (Nibert, 2002, 2013). Recognizing such intersectionalities suggests that addressing other animals’ interests is necessary for challenging the exploitation and oppression of humans (Nocella, Sorenson, Socha & Matsuoka, 2013).

Looked at from either an anthropocentric or anti-specie-sist perspective, such evidence helps us see the importance of inclusion of other animals in addressing violence, abuse and cruelty in society. Ignoring well-being of other animals and their rights not to be mistreated in agribusiness reinforces the grounds for violence, which is one of the essential conditions of oppression (Young, 1990). Considering social welfare from an anti-oppressive approach, such parallel oppressions need

to be examined. The same profit-driven impetus that creates the brutal conditions of mass transportation, slaughtering and processing of animals is responsible for dangerous labor environments for workers, whose senses of compassion and empathy are numbed by the atrocities they inflict on other sentient beings. This is exploitation and oppression of the working class through institutionalized exploitation and oppression of other animals. Exploitation of other animals is closely linked with threats to healthy, safe environments for workers and opportunities for people to access healthy food. Thus, examination of relationships with other animals must be taken seriously in deciding upon collective actions to meet human needs.

Consumption

Myers (1981) described how the developed world's "virtually insatiable demand for beef" destroyed Central America's forests, a process he termed "one of the greatest biological debacles to occur on the face of the earth" (p. 3). Myers found that the annual demand for beef in 1976 was 61 kilos per person in the U.S., up from 38.7 kilos in 1960. By 2006, this had fallen to 43.8 kilos per person, but it was accompanied by consumption of 29.6 kilos of pork, 46.5 kilos of "broiler meat" and 7.4 kilos of turkey per person (United States Department of Agriculture [USDA], 2006). However, these changes in diet are not necessarily a healthy development, as meat consumption is associated with obesity (Wang & Beydoun, 2009), now recognized as an epidemic health problem.

A 2011 Gallup-Healthways survey found that 62.1 percent of Americans were obese or overweight, noting that obesity was most common among low-income, African-American and middle-aged people (Mendes, 2012). Social determinants of health and meat consumption need to be explored. However, meat consumption is encouraged by extensive advertising from meat and fast food industries; for example, McDonald's annual advertising budget alone is "about \$2 billion" (Dow Jones Newswires, 2010), and much of this is aimed at children. Considering that unsanitary conditions in factory farms and slaughterhouses encourage the spread of disease to human consumers, this is alarming. In the U.S., costs associated with salmonella alone are about \$2.5 billion per year (Gurian-Sherman, 2008).

Consumption of meat itself creates health issues. Researchers have detected links between meat consumption and colon cancer (Chao et al., 2005). Consumption of animal fat is linked with increased breast, colon, ovary and prostate cancer (Rose, Boyar, & Wynder, 1986). A study of over a half-million people concluded that consumption of red and processed meats is linked with increased deaths from cancer and heart disease (Sinha, Cross, Graubard, Leitzman, & Schatzkin, 2009). A recent Swedish study of 40,291 men aged between 45-79 years with no history of cardiovascular disease or cancer found that red meat consumption was positively associated with the risk of stroke (Larsson, Virtamo, & Wolk, 2011). A 2003 meta-analysis of all papers published to that date found increased risk of breast cancer related to meat consumption (Boyd et al., 2003). Red meat is linked with diabetes (Pan et al., 2011), and red and processed meat consumption particularly increases women's risk of developing type 2 diabetes (Song, Manson, Buring, & Simin, 2004). Medical costs of treating these meat-linked diseases and conditions are enormous. One study estimated U.S. health care costs directly attributable to meat consumption in 1992 at \$28.6 – 61.4 billion (Barnard, Nicholson, & Howard, 1995). However, in 2009, *Time* magazine cited U.S. medical costs of obesity alone at \$147 billion per year (Walsh, 2009). Meat consumption is linked to ill health and high costs for health care. Debates over rising health care costs often overlook this link. Even looking at benefits to humans alone, reducing consumption and changes in diet eases costs and suffering. While anthropocentric social welfare may stop at recommending education for better diets, anti-speciesists link collective actions for beneficial dietary changes with acknowledgement of continuities between human and other individuals. Both perspectives recognize that institutionalized commercial exploitation of animals for food has direct consequences for human welfare and support importance of inclusion of other animals in analysis.

Globally, increased meat consumption creates further destruction and oppression. The FAOUN (2006) outlined the devastating impact of the global livestock industry. Expansion of livestock production is a direct cause of deforestation, especially in Latin America, where 70 percent of previously-forested land is now pasture for cattle. In Brazil, a few wealthy

landowners clear huge swathes of the Amazon rainforest to create pasture. The Center for International Forestry Research noted a “frightening” increase in deforestation accompanying the growing demand, largely from the U.S., for Brazilian beef, describing “phenomenal” expansion of cattle-ranching operations (doubling in size to 57 million animals in 2002), with 80 percent of this increase in the Amazon, where deforestation “skyrocketed” (Kaimowitz, Mertens, Wunder, & Pacheco, 2004, p. 1).

Growing consumption also affected human populations. The ranching industry is linked with violent expulsion of peasants and indigenous peoples (Bunker, 1990; Margulis, 2003; Survival International, 2011). Groups such as Human Rights Watch (2008) consistently have reported on human rights violations, especially concerning indigenous people, in Latin America, where wealthy ranchers expand their estates by hiring gunmen to murder political opponents. Anti-Slavery International has reported on the enslavement of indigenous people on private ranches in Bolivia and Brazil (Sharma, 2006a, 2006b). Displacement and enslavement of indigenous people and other vulnerable populations, such as peasants and small farmers in Latin America, is facilitated by state policies “fueled by such U.S.- controlled institutions as the World Bank and the International Monetary Fund ... in order to increase export revenues” (Winders & Nibert, 2004, p. 90). Exploitation of animals comes back full circle as threats to the well-being of vulnerable people: exploitation, marginalization and powerlessness.

As demand for cheap meat and dairy grows, so does the increasingly concentrated ownership of meat, egg and dairy industries. This affects the economic and social quality of human life and social justice. In the U.S. for example, “in 1996, 57 million pigs were distributed among one million farms; in 2001 these same 57 million pigs were raised on 80,000 farms, and over half were raised in just 5000 facilities” (Walker et al., 2005, p. 351). Rapid growth of factory farms for more profitability has displaced small farms, disrupted social and economic systems, increased unemployment and lowered the value of homes and real estate located nearby (Gomez & Zhang, 2000). One study of corporate hog farming in Oklahoma found that Seaboard Farms’ stockholders profited from arrangements

in which taxpayers funded subsidies, interest-free loans, tax reductions and exemptions and provision of infrastructure. Meanwhile, environmental impacts included problems with waste disposal, odors, and deteriorating water quality. Social problems were related to an influx of new workers seeking low-waged jobs and requiring new schools and housing, increased crime and school dropout rates and the breakdown of social relations (North Central Regional Center for Rural Development, n.d.). Concentration of processing business weakened labor unions by de-skilling work and moving slaughterhouses to rural areas where unions are not supported and low wages and poor working conditions receive little resistance (Winders & Nibert, 2004). Concentrated ownership for greater exploitation of other animals results in further exploitation of workers and communities. Thus "what happens to animals is deeply intertwined with what happens to people" (Birke, 2007, p. 306).

Consuming other animals as food reinforces patriarchy and sexual oppression (Adams, 2000; Grauerhols, 2007). Consumption of meat is gendered in the Western world, and beef-eating, in particular, symbolizes manliness and male dominance (Rifkin, 1992). Calvo (2008) argues that institutionalized exploitation of other animals for meat is "shaped by relations of capital and patriarchy" (p. 43) where mainly female animals are bred to produce "feminized protein" (p. 38) (eggs from hens, milk from cows and, at the end, the flesh of female bodies) using forced reproduction to maximize profit. Feminists argue that unchecked mistreatment of animals for food perpetuates patriarchy (Gruen, 2007). This suggests that since eradicating patriarchy is essential for achieving social justice, an examination of gender relations and patriarchy beyond human needs must be incorporated in social welfare analyses.

Consumption of animals is also linked to food shortages and hunger (Brown et al., 2001; Walker et al., 2005). As the 21st Century began, 1.1 billion people were undernourished and underweight and an additional 1.3 billion were poor and hungry (Brown et al., 2001). However, Kul C. Gautam, UNICEF Deputy Executive Director, notes that we produce enough food for all, and that hunger and malnutrition are "consequences

of poverty, inequality and misplaced priorities" (UNICEF, 2007, p. 30). For example, a third of the world's cereals and 90 percent of soybeans are used for animal feed, despite the fact that this is a highly inefficient system (Pachauri, 2008). Whereas one hectare (2.2471 acres) of land could produce enough vegetables, fruits and cereals to feed thirty people, the same area could only feed between five and ten people with meat, eggs and milk (Pimentel & Pimentel, 2003). Brown et al. (2001) call for "restructuring the protein economy" (p. 55) and Walker et al. (2005) argue the importance of examining meat production in relation to public health concerns. Even if considering human welfare alone, examining consumption of other animals for food holds the key to responding to these serious issues: hunger, poverty, inequality and misplaced priorities.

Intersectionality

These findings show close relationships between exploitation of other animals and negative impacts on humans, with significant social costs. Raising animals for food under intensive agribusiness not only causes suffering for them, but creates inhumane environments for workers and presents serious threats to their health and to those in nearby communities. Negative economic impacts appear in productivity losses and medical care costs. Addressing human needs alone does not solve these situations. Examples presented here demonstrate the need to address situations of other animals to improve human health and social and economic welfare.

Even from an anthropocentric perspective that recognizes no direct duties owed to other animals, the impact of raising them for food in intensive agribusiness is serious enough to warrant considering their welfare, since these practices gravely affect not only their lives, but also those of humans, at local and global levels. An anti-speciesist perspective obliges us to introduce the principle of equal consideration of other animals. This refers to "the rule that we must treat likes alike ... if humans and animals do have a similar interest, we must treat that interest in the same way unless there is a good reason for not doing so" (Francione, 2000, pp. xxv-xxvi). In assessing these situations, since all animals have a similar interest, e.g., not being confined and living in contaminated environments, the conditions in which they are raised do not reflect these

individuals' interests. This leads us to suggest that society's welfare cannot be achieved without considering the interests of other animals.

Conclusion

An estimated 56.5 billion animals worldwide were killed for food in 2007 (Compassion in World Farming, 2009). Increased demand for meat means this number will grow. Looking at the process of using other animals for food, one sees that every step, from raising, transporting, slaughtering, processing and consuming them, has serious negative impacts on human health and the physical and social economic environment. Concomitant with institutionalized animal exploitation is exploitation of workers, and oppression of women and indigenous peoples. Health care costs incurred by workers and communities as consequences of pollution and deforestation are "excluded from the pricing system for cheap meat" (Walker et al., 2005, p. 353). In other words, unless we include industrialized institutional animal exploitation into analysis of social welfare, we will not recognize the full costs, which are serious and growing. As we have observed here, our relations with animals are intertwined with issues of social welfare such as exploitation, oppression, inequality and poverty. An animal rights perspective argues that animals have rights not to suffer, be exploited, subjected to violence or killed. Thus, inhumane use must be addressed in itself. Exploitation and violence are conditions of oppression (Young, 1990). This anti-speciesist, anti-oppressive view, however, allows the abovementioned concomitant sites of intersectionality of oppression to be investigated further to achieve goals of social justice and social welfare.

Returning to our question, "should social welfare be re-defined to include other animals even if we retain its goal of meeting human needs?" we respond that the goals cannot be achieved without considering relationships with other animals, thus we need to redefine social welfare to include other animals in its analysis. We strongly encourage social workers, social welfare scholars, policy makers and frontline professionals to reflect on animal rights in the everyday injustices we try to eradicate. At the same time, education in social work and other social welfare-related fields should address

structural issues concerning systemic oppression of nonhuman animals by recognizing them as sentient beings with inherent value and rights. As people become more aware of relationships with other animals, the relevance of such relationships to social welfare becomes more apparent. To continue this debate, further research on social welfare that considers human relationships with other animals should be encouraged.

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